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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/732,674	12/08/2000	Ralph Coleman Hedden	H26187-US	2847

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EXAMINER

MOORE JR, MICHAEL J

ART UNIT	PAPER NUMBER
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2666

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DATE MAILED: 10/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/732,674

Applicant(s)

HEDDEN, RALPH COLEMAN

Examiner

Michael J Moore, Jr.

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 08 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☒ Claim(s) 1,8 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Specification

1. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

This embedded hyperlink is located in the disclosure on page 2, line 21.

Drawings

2. The drawings are objected to because no indication is given to what "CAA" means in Figure 4. There is no reference to the meaning of "CAA" in the specification or the claims. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 1 is objected to because of the following informalities: The acronym "DSP" in the preamble should be instantiated as "Datalink Service Provider" in claim 1. This instantiation needs only to be done in the first instance. Appropriate correction is required.

4. Claims 8 and 9 are objected to because of the following informalities: Both claims 8 and 9 use the word "tagging", which is not used in claim 1. Part (a) of claim 1 uses the phrase "providing a unique prioritization tag". A suggested correction would be to replace the word "tagging" in claims 8 and 9 with the phrase "providing a tag". This change would make the language more precise.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 4-14, and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Iwata (U.S. 5,933,425).

Regarding claim 1, Iwata describes a digital message routing system that contains all of the limitations of claim 1. Providing a unique prioritization tag for the digital message is anticipated by Figures 4A, 6A, 8A, and 10A of Iwata. These figures show administrative weights assigned to different network links based upon quality of service (QoS) issues such as available cell rate and cell transfer delay. Supplying prioritized criteria from the user to overlay software, choosing the corresponding DSP route, and routing the corresponding digital message(s) are all anticipated by the user-specified QoS parameters (transmission delay time, delay time variation, transmission error rate, and cell loss rate) and routing methods spoken of in columns 1 and 2 of Iwata. Refer to figures 4A, 6A, 8A, and 10A for examples of these QoS parameters. Also, refer to figures 4B, 4C, 6B, 6C, 6D, 8B, 8C, and 10B for examples of routing methods based upon these QoS parameters.

Regarding claim 4, the method of claim 1 for a next user is further anticipated by the user terminal(s) shown in Figure 1 of Iwata. According to this figure there can be a multiple of user terminals using this system.

Regarding claim 5, the method of claim 1 for a next digital message is further anticipated by the user terminal(s) shown in Figure 1 of Iwata. According to this figure this system is capable of routing multiple digital messages from multiple user terminals to a destination.

Regarding claim 6, the method of claim 1 with prioritized criteria consisting of at least one of the claimed criteria (message cost, message speed, message security, and message integrity) is further anticipated by the quality of service parameters eluded to in column 1, lines 15-30 of Iwata. The stated QoS parameters in Iwata are transmission delay time, delay time variation, transmission error rate, and cell loss rate. These parameters correspond to message cost, message speed, and message integrity.

Regarding claim 7, the DSP route being chosen at a member of the claimed group (vehicle, user initiation facility, and a government control facility) is further anticipated by Figure 1 of Iwata. This figure shows the user terminal(s) where a user will set the required QoS parameters. Once this is done the message will be transmitted to node A of Figure 1, which is the control facility for the system. Based upon the required parameters the control facility will route the message accordingly.

Regarding claims **8** and **9**, the method of claim 1 utilizing either automatic tagging or manual tagging is further anticipated by the administrative weights described in column 3, lines 30-46 of Iwata. Iwata's disclosure describes administrative weights that are assigned by a network provider to each link of the network. These weights may be assigned either manually or automatically by the network provider.

Regarding claim **10**, the claimed overlay software including at least one of the listed components (lookup tables, logarithmic calculations and real-time information on cost, available DSP routes, and DSP route status information) is anticipated by the routing tables **103**, **105**, and **106** of Figure 1. These routing tables correspond to the claimed lookup tables. Specifically, the QoS-based routing controller **104** of Figure 1 utilizes these routing tables to control the routing of the network at any instant.

Regarding claim **11**, the added step of updating real-time cost information is further anticipated by the administrative weights eluded to in column 3, lines 30-46 of Iwata. Iwata describes how a network provider to each link assigns the administrative weights. These weights are used as a link cost to calculate the total cost of a path. Also, these weights are updated to adapt to changes in network conditions.

Regarding claims **12** and **13**, the feature of either time-based updates or DSP query updates is further anticipated by column 2, lines 1-18 of Iwata. Iwata describes a method where link status information is stored on a network and

updated periodically over time. This link status information indicates resource constraints in the network, which are found by querying the status of the network links at any instant.

Claim 14 contains the same limitations as claim 1 except for the method of choosing a DSP route from at least two DSPs by the overlay software. Since Iwata describes a network system that chooses a route from multiple available links, claim 14 is anticipated for the same reasons as claim 1 above.

Regarding claim 16, the method of claim 14 for a next digital message is anticipated for the same reasons as claim 5 above.

Regarding claim 17, the method of claim 14 with prioritized criteria consisting of at least one of the claimed criteria (message cost, message speed, message security, and message integrity) is further anticipated for the same reasons as claim 6 above.

Regarding claim 18, the method of claim 14 wherein the claimed overlay software includes at least one of the listed components (lookup tables, logarithmic calculations and real-time information on cost, available DSP routes, and DSP route status information) is further anticipated for the same reasons as claim 10 above.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2, 3, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwata (U.S. 5,933,425) in view of Harper (U.S. 5,432,776).

Regarding claims 2, 3, and 15, Iwata's invention as described above does not disclose a method for tracking the chosen DSP route(s) for accounting purposes. However, Harper discloses a message network monitoring system that contains some nodes that are monitored for accounting purposes. In column 1, lines 54-62, Harper describes how usage monitoring can be used to detect bottleneck areas in the network and also to conduct customer-billing practices. Harper continues in column 6, lines 13-27 that his invention generates accounting digests that contain information concerning the nature and route of the message. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to make use of accounting purposes to track DSP routes. The motivation for doing this would be to improve network efficiency and/or provide a means for billing customers for network services.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Both Wegner et al. (U.S. 5,712,907) and Shaffer (U.S. 5,898,668) disclose digital message routing methods that have elements that are pertinent to this application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J Moore, Jr. whose telephone number is (703)

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305-8703. The examiner can normally be reached on 8:30am - 5:00pm (Monday-Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached at (703) 308-5463. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

mjm MM

Seema S. Rao
SEEMA S. RAO 10/17/03
SUPERVISORY PATENT EXAMINER
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